

Animating the display state of elements



- Gradual transitions of a short duration help us know what's changing and how we got from one state to the other—and that's where the jQuery core effects come in.
- There are three sets of effect types:
 - ▣ Show and hide
 - ▣ Fade in and fade out
 - ▣ Slide down and slide up

1. Showing and hiding elements gradually

- The `show()`, `hide()`, and `toggle()` methods are a tad more complex than we led you to believe.
- When called with **no parameters**, these methods effect a simple manipulation of the display state of the wrapped elements, causing them to instantaneously be revealed or hidden from the display.
- But when passed parameters, these effects can be **animated** so that the changes in display status of the affected elements take place over a period of time

Method syntax: hide

hide(speed, callback)

Causes the elements in the wrapped set to become hidden. If called with no parameters, the operation takes place instantaneously by setting the `display` style property value of the elements to `none`. If a `speed` parameter is provided, the elements are hidden over a period of time by adjusting their width, height, and opacity downward to zero, at which time their `display` style property value is set to `none` to remove them from the display.

An optional callback can be specified, which is invoked when the animation is complete.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Optionally specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, no animation takes place, and the elements are immediately removed from the display. |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. The callback is fired for each element that undergoes animation. |

Returns

The wrapped set.

Method syntax: show

show(speed, callback)

Causes any hidden elements in the wrapped set to be revealed. If called with no parameters, the operation takes place instantaneously by setting the `display` style property value of the elements to an appropriate setting (one of `block` or `inline`).

If a `speed` parameter is provided, the elements are revealed over a specified duration by adjusting their width, height, and opacity upward to full size and opacity.

An optional callback can be specified that's invoked when the animation is complete.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Optionally specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, no animation takes place and the elements are immediately revealed in the display. |
| <code>callback</code> | (Function) An optional function invoked when the animation is complete. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. The callback is fired for each element that undergoes animation. |

Returns

The wrapped set.

Method syntax: toggle

toggle(speed, callback)

Performs `show()` on any hidden wrapped elements and `hide()` on any non-hidden wrapped elements. See the syntax description of those methods for their semantics.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Optionally specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, no animation takes place. |
| <code>callback</code> | (Function) An optional function invoked when the animation is complete. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. The callback is fired for each element that undergoes animation. |

Returns

The wrapped set.

We can exert a bit more control over the toggling process with another variant of the `toggle()` method:

Method syntax: toggle

toggle(condition)

Shows or hides the matched elements based upon the evaluation of the passed condition. If `true`, the elements are shown; otherwise, they're hidden.

Parameters

- | | |
|------------------------|--|
| <code>condition</code> | (Boolean) Determines whether elements are shown (if <code>true</code>), or hidden (if <code>false</code>). |
|------------------------|--|

Returns

The wrapped set.

2. Fading elements into and out of existence

- These methods adjust the opacity of elements.

Method syntax: fadeIn

fadeIn (speed, callback)

Causes any matched elements that are hidden to be shown by gradually changing their opacity to their natural value. This value is either the opacity originally applied to the element, or 100 percent. The duration of the change in opacity is determined by the `speed` parameter. Only hidden elements are affected.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, the default is "normal". |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element. |

Returns

The wrapped set.

Method syntax: fadeOut

fadeOut (speed, callback)

Causes any matched elements that aren't hidden to be removed from the display by gradually changing their opacity to 0 percent and then removing the element from the display. The duration of the change in opacity is determined by the `speed` parameter. Only displayed elements are affected.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, the default is "normal". |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element. |

Returns

The wrapped set.

Method syntax: `fadeTo`

`fadeTo(speed, opacity, callback)`

Gradually adjusts the opacity of the wrapped elements from their current settings to the new setting specified by `opacity`.

Parameters

<code>speed</code>	(Number String) Specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, the default is "normal".
<code>opacity</code>	(Number) The target opacity to which the elements will be adjusted, specified as a value from 0.0 to 1.0.
<code>callback</code>	(Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element.

Returns

The wrapped set.

3. Sliding elements up and down



- Another set of effects that hide or show elements—`slideDown()` and `slideUp()`—also works in a similar manner to the `hide()` and `show()` effects, except that the elements appear to slide down from their tops when being revealed and to slide up into their tops when being hidden.
- As with `hide()` and `show()`, the slide effects have a related method that will toggle the elements between hidden and revealed: `slideToggle()`.

Method syntax: slideDown

slideDown(speed, callback)

Causes any matched elements that are hidden to be shown by gradually increasing their vertical size. Only hidden elements are affected.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, the default is "normal". |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element. |

Returns

The wrapped set.

Method syntax: slideUp

slideUp(speed, callback)

Causes any matched elements that are displayed to be removed from the display by gradually decreasing their vertical size.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: "slow", "normal", or "fast". If omitted, the default is "normal". |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element. |

Returns

The wrapped set.

Method syntax: `slideToggle`

`slideToggle(speed, callback)`

Performs `slideDown()` on any hidden wrapped elements and `slideUp()` on any displayed wrapped elements. See the syntax description of those methods for their semantics.

Parameters

- | | |
|-----------------------|---|
| <code>speed</code> | (Number String) Optionally specifies the duration of the effect as a number of milliseconds or as one of the predefined strings: “slow”, “normal”, or “fast”. If omitted, the default is “normal”. |
| <code>callback</code> | (Function) An optional function invoked when the animation completes. No parameters are passed to this function, but the function context (<code>this</code>) is set to the element that was animated. This callback is fired individually for each animated element. |

Returns

The wrapped set.